



1605 Oughtibridge Mill

Oughtibridge

Sheffield

Boiler House

Visual Structural Survey

Rev A

DP Squared Ltd

Second Floor
4 Albert Street
Hebden Bridge
HX7 8AH

01422 846693 :T

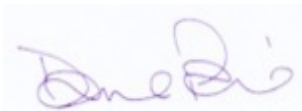
Boiler House Visual Structural Survey
At
Oughtibridge Mill, Oughtibridge
For
CEG

April 2017.

Ref : dp2 / 1605 Rev A

Report Prepared by D.Paine

B.Eng C.Eng MICE



Rev	Date	By	Comment
-			
A	11-12-17	DEP	Updated for demolition

CEG have commissioned this survey, and this report is for their use only. It should not be passed to, or relied upon, by a Third Party without the express written permission of DP Squared Ltd.

The total Professional Liability associated with this survey is limited to £1,000,000, and claims for asbestos and contamination are excluded.

Boiler House Visual Structural Survey

Contents

1. Introduction

2. Visual Survey

3. Conclusion

4. Demolition Proposals

1. Introduction

DP Squared Ltd have been appointed by CEG to undertake a visual structural survey of three buildings on the Oughtibridge Mill site on Langsetts Rd, Sheffield. This report is for the Boiler House Building.

The buildings are shown in the photograph below:

- The Boiler House – A two storey stone built building with a slate roof.
- The Warehouse – A single storey stone built building with a trussed slate roof.
- The Office Building – A two storey office building



Boiler House

Warehouse

Office Building

The survey was carried out on the 27th March 2017; the weather conditions were bright and clear. Access was possible to all areas of the building.

This report covers the visual survey of the Boiler House only. No opening up works were undertaken and the photographic record shows the building "as is".

The Boiler House is generally in a poor condition and there are signs of movement due to water penetration and vegetation growth at roof level. The first floor is propped and not suitable to be accessed.

The primary structure of the building is as follows:

- Timber roof rafters.
- Timber roof purlins.
- Timber trusses
- Timber first floor
- Load bearing perimeter walls.

The foundations are assumed to be strip footings on the underlying strata, but this could not be verified.

2. Access Strategy

This section describes the general condition of the buildings.

The Boiler House



The Boiler House is a two-storey stone structure with a slate roof, timber rafters and a part first floor.

Access to the building is via the steel door on the North Elevation.



View of the roof showing excessive deflection to the hip rafter and the sagging between trusses along the ridge.



The roof is supported on several timber trusses with purlins and rafters. The hipped end has rafters spanning from the truss to the eaves.

The trusses are quite slender and due to the water penetration and movement may not be suitable to be re-used.



There is a part first floor within the building. The floor joists are showing signs of significant damp penetration and decay. The floor is propped in several areas but this shouldn't be relied upon.



View of the failed joist ends



The site elevation is in a very poor condition with significant vegetation growth and movement in the brickwork.

In two locations, large trunks have grown in to the brickwork and displaced the wall.



The roof and eaves have been displaced where the branch is growing between the brickwork.



The junction between the front and side elevations shows signs of movement and the walls are not coursed in.

3. Conclusion

This Boiler House is in a very poor condition and obviously hasn't been maintained for some time. Significant damp penetration and vegetation growth has led to the decay of the floor structure and the movement in the external walls. This will have, in turn, led to the movement within the roof.

Summary Condition

Item	Proposal
Brickwork generally	Clean and repoint all brickwork, including "helibar" or "helifix" ties to restrain corners and areas of cracking.
Site elevation - Brickwork is in very poor condition with movement at high level on the site elevation.	Take down the masonry to ground level and rebuild.
Movement within the roof members	Appoint a timber specialist to survey the existing roof timbers and determine the extent of any rot or decay. Design check on the rafters, purlins and trusses to ensure they comply with current regulations, including an allowance for new roof membranes, insulation and ceiling. If they don't comply, provide a new roof structure.
First Floor	Replace the first floor in its entirety.
Windows / Lintels	Replace all internal lintels with suitable pre-cast concrete lintels

4. Demolition Proposals

Subsequent to this survey report it is intended to demolish the Boiler House. Planning Conditions related to this state the following:

15. Prior to the commencement of demolition of buildings fronting Langsett Road North/Main Road, a conditions survey of the retaining structure supporting Langsett Road North/Main Road shall have been submitted to and approved in writing by the Local Planning Authority. Thereafter any remediation measures required by the conditions survey in order to maintain the structural integrity of the retaining structure shall be carried out in conjunction with the demolition works. If, ultimately, the retaining structure is back-filled, full details of materials, method of compaction, drawings and any calculations shall have been submitted to and approved in writing by the Local Planning Authority in advance. If, ultimately, the retaining structure is not being back-filled, details of the space being set aside to allow the Local Planning Authority access to carry out periodic inspections of the retaining structure shall have been submitted to and approved in writing by the Local Planning Authority prior to any dwellings being constructed, with any remedial/strengthening/construction works identified by the inspection being undertaken by the owners of the retaining structure with immediate effect.

The existing Boiler House does not retain the highway to Langsett Road North, as shown in the photograph below, the approximate ground level within the building is shown in red.



The intention is to demolish the boundary wall of the building to approximately 900mm above footpath level to maintain a boundary separation.